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Cost Control Factors Influencing Operational Performance in The Government Human Settlement Unit In South Africa

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Abstract

Purpose: To explore cost control factors influencing operational performance in the government human settlement unit in South Africa. Operational performance in this study was measured through the prism of administrative and human settlement functions. Employing a quantitative approach, this study employed cross-sectional design, utilizing census sampling to gather data from a cohort comprising 44 staff members hailing from relevant units. Method: The used Panel-corrected standard error (PCSEs) regression model at a confidence level below 0.05. Results: Internal factors (staff skills, leadership skills, and organizational culture) and an external factor (market environment) significantly affect operational performance (Human settlement function) at a statistical significance below 0.05. Originality/relevance: A comprehensive analysis of both internal and external cost control factors to identify areas for improvement on operational performance and enhance service delivery to the community.

Keywords: *cost control, human settlement, South Africa, performance.*

Introduction

Studies worldwide have explored cost control, yielding varying results, indicating its significance in both research and practical application. Cost control aims to keep an organization's operating costs within acceptable limits. When the actual costs deviate significantly from the planned costs, effective cost controls become essential (Abad-Segura et al., 2023). Everyone within an organization, from top management to floor employees, should be involved in facilitating cost controls in general. Cost control not only ensures high service quality but also maintains low actual spending. In addition, it fosters opportunities associated with organizational culture, where employees understand the finance purpose, fostering teamwork towards a common business goal (Curtis and Burns, 2015). Previous studies have provided empirical literature on various aspects. They examined the organizational performance, focusing on financial accountability, reporting, and financial control. Their studies also revealed a lack of business knowledge. They also highlighted common service delivery gaps in government sectors, with limitations in measurement data, standards, and information hindering performance management and strategic plan implementation. This study aims to examine the cost control factors that influence operational performance in the government Human settlement unit in South Africa. The objective of the study is to investigate factors that influence cost controls to improve operational performance in this unit.

Literature Review

Operational Performance

Departments within the organization have various methods to measure operational performance, tailored to their specific mandates, whether profit driven or not. Municipalities, focused on providing community services via government grants. Therefore, they operate without profit objectives. Their performance evaluation centres on outcomes rather than mere outputs. This entails evaluating the tangible impact and results of the organization's initiatives and programs for the community and stakeholders. To achieve desired outcomes, government departments must enhance resource management, which include cost

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control management. Municipalities operate under management policies outlined in the Municipal Financial Management Act (MFMA), Act No. 56 of 2003. This legislation serves as the official framework for overseeing municipal finances, curbing unauthorized, irregular, and fruitless spending, and safeguarding municipal resources (Nzuza, 2015).

Human settlement unit

The human settlement unit, as a provider of essential government services to deserving individuals, does not exchange services for money. The Human settlement unit assesses its performance by gauging its ability to meet targets and stay within the allocated budget. Any disparities are deemed as either under or overspending, prompting investigations into the reasons behind such discrepancies and decisions for improvement. It is important to acknowledge that the unit incurs expenses, covering general office administrative costs and those related to projects for delivering support services, planning, and housing development. Therefore, the cost control factor is crucial in this process, as any instances of over or under expenditure may stem from inadequate cost control within the department (Human-Settlement, 2022). Without effective cost control, maintaining operating costs within acceptable limits becomes challenging. Cost control underscores the importance of implementing measures to ensure that actual costs align closely with planned costs. When there are significant deviations between actual and planned costs, effective cost control measures become imperative (Abad-Segura et al., 2023). Therefore, achieving targets while also keeping costs within acceptable levels indicates effective management of the organization's operations (Oyegoke et al., 2022).

Administration unit

The purpose of this programme is to provide strategic leadership and administration support programmes for the department, promoting efficient administrative procedures, effective legal assistance and efficient systems of information technology (Human-Settlement, 2022). This programme consists of six sub-divisions that contribute towards ensuring the realisation of the objectives of the programme, which include: Providing effective leadership and management, the use of financial capital in compliance with the prescripts. Ensuring the reliability and security of the accessible information and communications technology (ICT) infrastructure. Facilitate internal and external human contact and strong and effective legal assistance for settlements. The objectives of this programme can be achieved through effective cost control applications, as they ultimately enhance efficiency and monitor and evaluate every division within the organisation (Siyanbola and Raji, 2013). Cost control processes start in the administrative section as this is where employees receive guidance towards applying these cost control methods into operations (Siyanbola and Raji, 2013).

Internal Factors Influencing Cost Controls

Even though there is lack of studies on the internal factors influencing cost controls, however the current study reviewed related studies on the internal factors influencing operational performance of organisations. For example, Due to the lack of skills in many cases, prior studies have shown that teamwork helps employees to share their skills and knowledge (Varela and Mead, 2018). However, teamwork is criticised by Ng and Tan (2022) arguing that the effectiveness of this approach is debatable. The authors believe that while there might be a favourable correlation between a team's-oriented culture and organisational performance, the efficacy of teamwork depends on the alignment of goals and measurement methods. However, Askari et al. (2020) reported on the impact of teamwork in an organisation's performance. Their study found that staff collaboration is a significant factor for improved organisational efficiency and performance. Likewise, leadership has also been reported to be a significant factor in the performance of an organization. Leadership is different from management, it is defined as collaborating and motivating other people to achieve common goals. Leadership aims to point out direction, aligning people, and motivating them to inspiring change, whereas management involves planning, building, and directing organizational processes to achieve goals. Algahtani (2014) confirms that leadership is distinct from management as it has a direct effect on employee's job satisfaction and company performance as a whole.

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Studies have also revealed that organizational culture is a significant consideration for enhancing operational performance. However, there may be insufficient research on the theoretical foundations of organizational culture in the municipal sector, potentially hindering widespread dissemination of best practices. Trust, commitment, information sharing, and mutual respect are the factors that contribute to collaboration, even in the presence of differing organizational cultures (Prasanna and Haavisto, 2018). Consequently, Osei et al. (2023) assert that organizational culture is essential for achieving sustainable organizational performance.

Studies conducted in the South African public sector have identified a shortage of necessary skills among staff members. Additionally, it has been observed that job vacancies often require a collation of skills unrelated to the advertised position. Specifically, key officials in finance units lack the competencies and abilities needed to implement controls for the daily financial performance of municipalities. These studies have also found a lack of training in revenue planning, leading to inadequacies in staff Molobela (2016) and Algahtani (2014). Furthermore, research conducted from public sectors in Spain and Italy by Padovani et al. (2010), has revealed a gap between budgeted and actual spending, attributed to a lack of understanding and successful implementation of management accounting technologies and practices.

External Factors Influencing Cost Controls

Even though there is lack of studies on the external factors influencing cost controls, however the current study reviewed related studies on the external factors influencing operational performance of organisations. For example, Studies have indicated that accountability has an influence on the organizational performance. For example, Sibanda et al. (2020) are of the view that lack of accountability heightens risks in supply chain processes and leads to poor organizational performance. In the context of the local government environment in South Africa, officials often struggle to comply with accountability laws, particularly when political influence affects administrative procedures related to municipal finances. This presents challenges to accountability within the local government setting (Selepe and Magagula, 2023). Another study conducted by Hofstetter et al. (2020) focused on failed water infrastructure delivery despite reports of increased accountability in service delivery. The study revealed that accountability relations between service delivery agencies and end users were compromised by patronage. Lack of policy enforcement also undermines accountability. Additionally, as emphasized by Sibanda et al. (2020), accountability is bolstered by strong internal controls within the organization.

Literature shows that customer centricity including understanding clients' needs and providing superior service, is emerging as new sources of competitive advantage in both the public and private sectors (Varadarajan, 2020). The organizations can understand better their marketing environments by leveraging constituency insights to inform and implement their strategic decisions. Furthermore, there are enough opportunities for public sectors to grow and thrive in the market, as long as they develop an efficient strategy to cater to the needs of individuals within specific market environments. This is especially vital given the severe competition and intricate market dynamics, with the private sector increasingly competing with the public sector, as observed by Sudirjo et al. (2024). For that reason, there has been a notable tendency observed recently, where the public sector encounters environmental uncertainty, a phenomenon previously more prevalent in the private sector. Environmental uncertainty also heightens the likelihood of business failure (Andalib Ardakani et al., 2023). Therefore, mitigating environmental uncertainty within the organization is crucial as it signifies good governance (Yu et al., 2023).

Additionally, the public service delivery has been neglected in favour of personal gain and power retention by political leaders entrusted with promoting sustainable service delivery. In this regard, performance measurement may be extremely helpful in holding political office accountable and ensuring that they understand that service delivery should be the centre of their attention (Thusi and Mashabela, 2023). This supports the claims made by Mhlaba et al. (2018) on the impact of leadership on municipal service delivery in Bushbuckridge Local Municipality. Mhlaba et al. (2018) found that senior management changes were frequently brought about by shifts in political leadership. Five-year contracts were typically granted to senior managers in local government, leaving them open to possible contract renewal at the conclusion of their

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tenure. This could help to explain why senior managers in the public sector serve in their current capacities for less than five years. Another study conducted by (Plata-Díaz et al., 2014) revealed that the public sector management style is influenced differently by political and economic considerations.

Theoretical Framework For The Study

In order to examine the cost control factors influencing operational performance in the government human settlement unit in South Africa, the study employed contingency theory. This theory suggests that organizational situations and challenges vary from one organization to another (Otley, 2016). Therefore, given that most studies on cost control have been conducted in the private sector with varying results, these findings may not directly translate to the government Human settlement unit. Hence, the utilization of contingency theory was relevant to the current study. The Human settlement unit operates as a not for profit-making entity, but it relies strictly on government subsidies allocated to construct houses for the needy. The literature discusses various factors affecting organizational operational performance. The theory that internal and external environment affect organizations differently is the fundamental principle of contingency theory (Kudanga, 2018). The contingency approach posits that management control system strategies and procedures are shaped by the environment in which they are implemented (de Oliveira Fernandes et al., 2023). Hence, the utilization of contingency theory in the present study was suitable to explore an uncharted area, examining particular factors influencing cost control in the eThekwini Human settlement unit, thus contributing to existing theoretical knowledge.

Research Design

The studies conducted according to positivism have an independent researcher and do not take human motives into consideration. Positivists hold that reality can be quantified using properties that are independent of the research methods used at the ontological level and that reality is provided objectively. This implies that knowledge is impartial and measurable. Therefore, a positivist research developed theory through deductive reasoning from which hypotheses developed and were tested. According to this philosophy, theories were developed using pre-existing theories. These theories were investigated and led to the development of the hypotheses that were subsequently tested (Opoku et al., 2016).

The sample population for the study included eThekwini municipality Human settlement unit employees. This unit was selected based on its in-depth knowledge and daily involvement in financial and budgetary matters making them uniquely qualified to provide valuable insights into the research questions. By concentrating on this sample group, the researchers succeeded to gather comprehensive and relevant data. This focused approach ensured that the findings where directly applicable to the specific context under study. Quantitative research method was used to obtain understanding of cost control factors influencing operational performance in the Human settlement unit of the eThekwini Municipality in South Africa. Due to a small number of employees under the targeted population, the research adopted the census sampling method to increase participation and to get in depth answers to the research. This implies that every finance employee from the Human settlement unit was included as part of the target population, aiming to provide these employees with an equal opportunity to participate in the study (Ross and Reeve, 2003). The sample size was made up of 44 staff members of which 10 participants were drawn from the internal control section, 13 from the budgets section, 17 from the accounts section, and 4 from the finance section. A questionnaire instrument consisting of a series of ready-made questions was used in this research. This allowed for the collection of information from sample responses. In this study, questionnaires were utilised because they give a uniform form on which facts, remarks and views can be written down, and they are a trustworthy source of information from respondents. The study employed descriptive statistics and correlation matrix tests to examine the influence and relationship of internal and external factors on operational performance, which was presented as the administration and human settlement function. The study variables tested are shown in table 1.

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Table 1: Research variables

Dependent variables (Y)   Administration function (ADMIN)   Human Settlement function (HSETT)   *Operational performance*
Independent variable (X)   **Internal factors**   Staff skills (IF1)   Staff teamwork (IF2)   Leadership (IF3)   Organisational culture (IF4)   **External factors**   Accountability (EF1)   Market environment (EF2)   Environmental uncertainty (EF3)   Socio-political changes (EF4)

Model specification

The fixed effect models were employed due to the fixed nature of the selected Government unit.

The hypotheses model is as follows:

$Y_{it} = \alpha + X_{it}\beta + \pi_i + \mu_{it}$…….……..…….…..…. (1)

π_i represents disturbances and μ_{it} represents time varying idiosyncratic shock. Yit is the vector of overall factor for a firm, the unobserved firm's specific effect is, β is a vector of estimating parameter for each of the explanatory variables while constant Xit is K-dimensional row vector of explanatory variables. The models for the study are as follow:

ADMIN$it = \alpha + \beta$1IF1I$it + \beta$2IF2it + β3IF3it + β4IF4it + $\pi i + \mu it$……...……..... (2)

ADMIN$it = \alpha + \beta$1EF1I$it + \beta$2EF2it + β3EF3it + β4EF4it + $\pi i + \mu it$……....…….... (3)

HSETT$it = \alpha + \beta$1IF1I$it + \beta$2IF2it + β3IF3it + β4IF4it + $\pi i + \mu it$……...……..... (4)

HSETT$it = \alpha + \beta$1EF1I$it + \beta$2EF2it + β3EF3it + β4EF4it + $\pi i + \mu it$……....…….....(5)

Estimating techniques

The correlation analysis in the study offered a valuable statistical technique that provides insights into the relationships between variables, informs decision making, and facilitates further analysis and interpretation of data in research and data analysis. moreover, utilizing the VAR and PCSE which seeks to estimates the degree of correlation within panels and cross-sectional period. Known methods for estimating the PCSE includes Beck and Katz (1995). This justifies the suitability of these techniques in the study to obtain reliable standard errors and improve the accuracy of statistical inference in empirical research, thereby significantly enhance the robustness and reliability of the study.

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Study Results

This section seeks to present the results obtained from the study.

Table 1 Demographics of respondents

	DEMOGRAPHICS	PERCENTAGE
Age	18-30	22.7%
	31-40	63.6%
	41-50	9.1%
	Over 50	4.5%
Level of education	Higher than Honours	2.3%
	Diploma	38.6%
	Degree	43.2%
	Honours	15.91%
	Matric	0%
	Below matric	0%
Work experience	<1 year	9.1%
	1-10 years	65.9%
	11-20 years	18.2%
	More than 20 years	6.8%

The age group of the respondents, as shown in Table 1, indicates that the majority were in the middle-aged group (63.6%), while 22.7% fell between 18-30 years of age, 9.1% were aged 41-50, and only 4.5% were above 50 years old. The analysis suggests that respondents aged 18–40 constitute a significant proportion (86.3%) of the age group categories. This aligns with the active years of employment in South Africa.

Respondents were asked to indicate their highest academic qualification to determine their academic qualifications and, as a result, their skill base. The respondents' level of education is provided in Table 1. The pie chart reveals that the majority (43.2%) held a degree, while 38.6% possessed a diploma, 15.9% had an Honours degree, and 2.3% had a higher qualification. The analysis indicates that a combined 81.8% of the respondents possess a diploma or a degree. Furthermore, the analysis suggests that a significant number of respondents hold a degree, which is advantageous for the unit in terms of skills.

The respondents also indicated their level of work experiences. As presented, Table 1 illustrates that the majority of 65.9% of the respondents have had between 1-10 years of work experience, 18.2% have had between 11-20 years, 9.1% have had less than one year of experience, and only 6.8% have had more than 20 years' work experience. The analysis indicates that most of the respondents have sufficient work experience to comprehend the cost control techniques applied by the unit.

Table 2: Operational performance

	Mean (SD)	t	Df	p-value
Cost control improves administration function	4.43	38.713	43	<.001*
Cost control improves human settlement function	4.41	35.839	43	<.001*

Strongly disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly (5)

Table 2 reveals that the mean values measured for the statements cost control improves administration function and cost control improves human settlement function are close to 4. This indicates a significant agreement with these statements among the respondents, suggesting that cost controls improve the administration and human settlement functions.

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Table 3 Cost control internal factors influence operational performance

Statement	Question code	Mean (SD)	t	Df	p-value
Staff skills	IF1	3.89	22.115	43	<.001*
Staff teamwork	IF2	4.32	31.504	43	<.001*
Leadership	IF3	3.77	21.234	43	<.001*
Organisational culture	IF4	4.18	23.773	43	<.001*

Strongly disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly (5)

Table 3 reveals that the mean values measured for the statements IF1, IF2, IF3, and IF4 are all above 3. This indicates a significant agreement with these statements among the respondents, suggesting that they do agree that cost control internal factors influence operational performance improvement. The statistical analysis indicates that staff teamwork (IF2), with a mean of 4.32, has a stronger influence. This finding strongly supports the study by Varela and Mead (2018), in that staff teamwork influences firm performance.

IF4, with a mean of 4.18, influences cost control for improving operational performance, aligning with studies by Prasanna and Haavisto (2018) and Osei et al. (2023) which found that organizational culture affects overall performance. Staff skills (IF1) and Leadership (IF3) exhibit mean values of 3.89 and 3.77, respectively, indicating a high level of agreement among the respondents. Consequently, employees are willing to undergo training to acquire the necessary skills to perform assigned tasks effectively and enhance operational performance. These findings align with the insights provided by Molobela (2016) and Algahtani (2014) suggesting that proper skills improve.

Table 4: Cost control external factors influence operational performance

Statement	Question code	Mean (SD)	t	Df	p-value
Accountability	EF1	3.98	27.026	43	<.001*
Market environment	EF2	3.89	23.804	43	<.001*
Environmental uncertainty	EF3	3.91	23.217	43	<.001*
Socio-political changes	EF4	4.18	27.887	43	<.001*

Strongly disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly (5)

Based on the statistical examination in table 4, there is a strong agreement by respondents on socio-political changes (EF4) as an influencer of cost control for improving operational performance. These results strongly support the argument by Plata-Díaz et al. (2014) and Molobela (2016) that public sector management is influenced by politics. According to Thusi and Mashabela (2023) political influence in the public sector compromises service delivery. Additionally, the results show that the environmental uncertainty (EF3) and market environment (EF2) have a mean close to 4, indicating agreement with the statement.

Table 5 correlation results on factors

	ADMIN	HSETT	IF1	IF2	IF3	IF4
ADMIN	1.0000					
HSETT	0.1360	1.0000				
	0.3788					
IF1	-0.0777	0.2930	1.0000			
	0.6160	0.0535				

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IF2	0.0000	-0.0026	0.4720	1.0000		
	1.0000	0.9865	0.0012			
IF3	0.0891	0.1377	-0.1252	0.0667	1.0000	
	0.5654	0.3727	0.4182	0.6672		
IF4	-0.0145	0.3827	0.3528	0.2766	0.1660	1.0000
	0.9255	0.0103	0.0188	0.0692	0.2815	
	ADMIN	**HSETT**	**EF1**	**EF2**	**EF3**	**EF4**
ADMIN	1.0000					
HSETT	0.1360	1.0000				
	0.3788					
EF1	0.0877	0.0069	1.0000			
	0.5761	0.9651				
EF2	-0.0808	0.2836	0.1493	1.0000		
	0.6023	0.0621	0.3395			
EF3	0.0792	0.1349	-0.0670	0.5918	1.0000	
	0.6093	0.3827	0.6697	0.0000		
EF4	0.1336	0.1745	0.2937	0.3420	0.4158	1.0000
	0.3873	0.2572	0.0560	0.0231	0.0050	

In Table 5, the correlation results show that the improvement of administration function (ADMIN) has no correlation with the internal factors. On the other hand, improving HSETT function is influenced by staff skills (IF1) and organisational culture (IF4) at 0.0535 and 0.0103 levels respectively. The results also indicate that there is no correlation between the Administration (ADMIN) function and external factors. This observation holds true for Human Settlement function (HSETT) as well.

Panel-corrected standard errors (PCSEs) results

Table 6: Kao test for cointegration: ADMIN, HSETT and internal factors

H0: No cointegration

Ha: All panels are cointegrated

	ADMIN		**HSETT**	
	Statistic	**p-value**	**Statistic**	**p-value**
Modified Dickey–Fuller t	-1.1313	0.1290	0.3466	0.3644
Dickey–Fuller t	-4.2798	0.0000	-2.7514	0.0030
Augmented Dickey–Fuller t	-0.6178	0.2683	0.1580	0.4372
Unadjusted modified Dickey–Fuller	-4.3650	0.0000	-4.6048	0.0000
Unadjusted Dickey–Fuller t	-5.8162	0.0000	-6.2778	0.0000

The study used Kao test to confirm cointegration. In table 6, the Kao tests show that variables under ADMIN function are cointegrated at Dickey-Fuller t, Unadjusted modified Dickey-Fuller, and Unadjusted Dicker-Fuller t at 0.000 level. Similarly, the variables under HSETT function are cointegrated at dicker fuller t, Unadjusted modified dickey-fuller and unadjusted Dickey-fuller t with P-Values (0.0000).

Table 7: Kao test for cointegration: ADMIN, HSETT and external factors

H0: No cointegration

Ha: All panels are cointegrated

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	ADMIN		HSETT	
	Statistic	**p-value**	**Statistic**	**p-value**
Modified Dickey–Fuller t	-2.8915	0.0019	0.3481	0.3639
Dickey–Fuller t	-6.2762	0.0000	3.0719	0.0011
Augmented Dickey–Fuller t	-1.8370	0.0331	0.0284	0.4887
Unadjusted modified Dickey–Fuller	-4.0484	0.0000	3.7513	0.0001
Unadjusted Dickey–Fuller t	-6.5712	0.0000	5.0388	0.0000

As illustrated in Table 7, the KAO test show that variable under improving Human settlement function (HSETT) are cointegrated at Dickey-Fuller t, Unadjusted modified Dickey-Fuller, and Unadjusted Dicker-Fuller t at 0.000 level. Similarly, with the Human Settlement function (HSETT), the KAO test show that variables are cointegrated at Dickey-Fuller t, Unadjusted modified Dickey-Fuller, and Unadjusted Dicker-Fuller t at 0.000 level.

Table 8: PCSEs – ADMIN and internal factors

Estimated covariances = 1 R-squared = 0.9584

Estimated autocorrelations = 0 Wald chi2(4) = 1013.37

Estimated coefficients = 4 Prob > chi2 = 0.0000

Indep-correlated

ADMIN	Coefficient	std. err.	z	P>z	[95% conf.	interval]
IF1	.0647464	.1499369	0.43	0.666	-.2291246	.3586174
IF2	.6067214	.1694726	3.58	**0.000**	.2745611	.9388816
IF3	.2880271	.1138566	2.53	0.011	.0648722	.511182
IF4	.1010372	.12758	0.79	0.428	-.149015	.3510894

Table 8 of the PCSEs model illustrates that staff teamwork (IF2) as a cost control technique has a positive and significant association with improving ADMIN function at 0.0000 level.

Table 9: PCSEs – ADMIN and external factors

Estimated covariances = 1 R-squared = 0.9557

Estimated autocorrelations = 0 Wald chi2(4) = 926.79

Estimated coefficients = 4 Prob > chi2 = 0.0000

Indep-corrected

ADMIN	Coefficient	std. err.	Z	P>z	[95% conf.	interval]
EF1	.4987155	.1327904	3.76	**0.000**	.2384511	.7589799
EF2	-.0280437	.1703446	0.16	0.869	-.3619129	.3058255
EF3	.3838512	.1688326	2.27	0.023	.0529454	.7147571
EF4	.2453885	.1596444	1.54	0.124	-.0675087	.5582857

Table 9 of the PCSEs model illustrates that accountability (EF1) as a cost control tool has a positive and significant association with improving ADMIN function at 0.000 level.

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Table 10: PCSEs – HSETT and internal factors

Estimated covariances	=	1	R-squared	=	0.9492
Estimated autocorrelations	=	0	Wald chi2(4)	=	821.44
Estimated coefficients	=	4	Prob > chi2	=	0.0000

Indep-corrected

HSETT	Coefficient	std. err.	Z	P>z	[95% conf.	interval]
IF1	.3678764	.1616747	2.28	0.023	.0509998	.684753
IF2	.0699564	.1827397	0.38	0.702	-.2882069	.4281197
IF3	.2922848	.1227699	2.38	0.017	.0516603	.5329094
IF4	.3433321	.1375675	2.50	0.013	.0737047	.6129595

Table 10 of the PCSEs model illustrates that organisational culture (IF4) as a cost control technique has a positive and significant association with improving Human settlement function (HSETT) at 0.0000 level.

Table 11: PCSEs – HSETT and external factors

Estimated covariances	=	1	R-squared	=	0.9340
Estimated autocorrelations	=	0	Wald chi2(4)	=	608.58
Estimated coefficients	=	4	Prob > chi2	=	0.0000

Indep-corrected

HSETT	Coefficient	std. err.	z	P>z	[95% conf.	interval]
EF1	.2617854	.1579242	1.66	0.097	-.0477403	.571311
EF2	.4023088	.2025864	1.99	0.047	.0052468	.7993707
EF3	.115134	.2007882	0.57	0.566	-.2784037	.5086717
EF4	.2827701	.1898609	1.49	0.136	-.0893504	.6548906

Table 11 of the PCSEs model illustrates that analyzing market environment as a cost control technique has a positive and significant association with improving Human settlement function (HSETT) at 0.047 level.

Vector Autoregression (VAR) results

Figure 1: Mean (Var)

Variable	Obs	Mean	Std. dev.	Min	Max
error	32	.0140404	.3738595	-.7021003	.8962687

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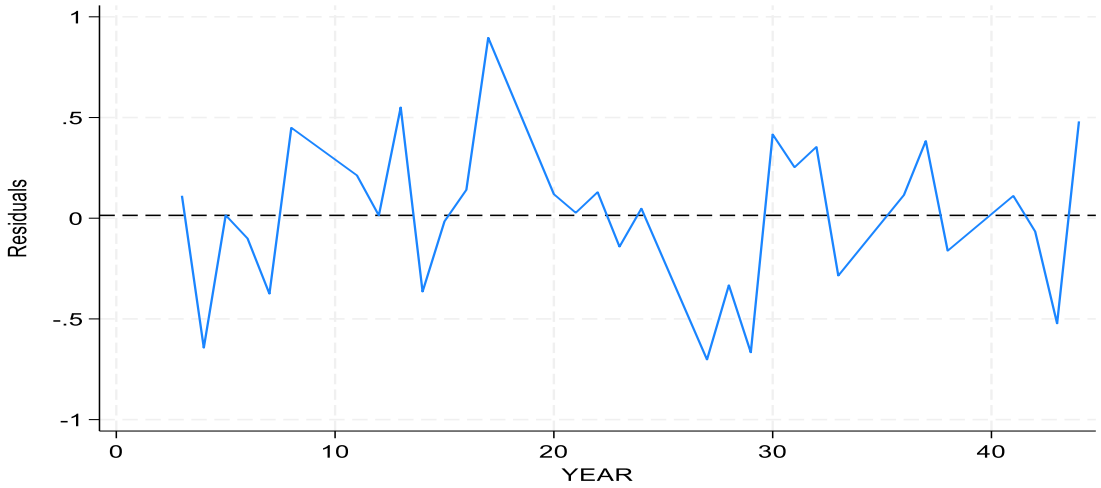

In Figure 1 the mean value of 0.0140404 serves as a measure of variance, indicating the spread of values within a dataset around the mean. This is computed by averaging the squared differences from the Mean. The findings suggest that the responses exhibit an insignificant standard deviation of less than 1. This implies a similarity in general views regarding the impact of internal and external factors on cost control for improving operational performance, as measured by Administration and Human settlement functions.

Figure 1: Eigenvalue stability condition

Eigenvalue	Modulus
.9864897	.98649
-.03359617 + .9652115i	.965796
-.03359617 - .9652115i	.965796
.6724936 + .5763703i	.885692
.6724936 - .5763703i	.885692
-.8601995 + .1628505i	.875479
-.8601995 - .1628505i	.875479
.6112671 + .6244557i	.873838
.6112671 - .6244557i	.873838
-.2189254 + .8012266i	.830598
-.2189254 - .8012266i	.830598
-.5778266 + .5678186i	.810124
-.5778266 - .5678186i	.810124
-.6870077 + .1733031i	.708529
-.6870077 - .1733031i	.708529
.5378874	.537887
.1245401 + .4496227i	.466552
.1245401 - .4496227i	.466552
.1406968 + .3425075i	.37028
.1406968 - .3425075i	.37028

All the eigenvalues lie inside the unit circle. Therefore, the VAR model signifies a robust and reliable framework for analyzing the internal and external cost control factors influencing improvement of operational performance, providing a solid foundation for drawing meaningful conclusions and informing decision-making processes.

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Table 13: Lag-order selection criteria

Sample: 3 thru 44, but with gaps Number of obs = 31

Lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	-391.848				.086049	25.9257	26.0765	26.3883*
1	-322.404	138.89	100	0.006	.852893	27.8971	29.5557	32.9854
2	-145.017	354.77*	100	0.000	.079162*	22.9043*	26.0709*	32.6184

* optimal lag
Endogenous: ADMIN IF1 IF2 IF3 IF4 EF2 EF3 HSETT EF1 EF4
Exogenous: _cons

The VAR method can run statistical analysis of more than one variable, which justifies it inclusion in this study. Table 13 shows that the VAR model evaluating the cost control factors influencing improvement of operational performance, represented by the ADMIN and HSETT functions, is significant at lags 1 and 2, with p-values of 0.006 and 0.000, respectively.

Discussions

The study hypotheses, aiming to explore the factors influencing cost control for enhancing operational performance measured by ADMIN and HSETT functions, underwent examination through VAR and PCSE tests. For instance, the study revealed that staff teamwork enhances the efficiency of the Administration function, with a coefficient showing significance at the 0.000 level. Therefore, the study's hypothesis suggesting that staff teamwork influences the improvement of the ADMIN function is supported. These findings align with prior research by Varela and Mead (2018) and Askari et al. (2020) which also highlighted the positive impact of staff collaboration on organizational performance. These results imply several implications for management in the HSU. Specifically, the observed positive correlation between ADMIN function and staff teamwork underscores the importance of strategic initiatives in fostering employee collaboration. This highlights the need to invest in employees' trainings to bolster ADMIN performance and contribute to overall operational effectiveness.

In the PCSE results concerning the ADMIN function against the external factors, the coefficient indicates that an enhancement in accountability within the organization leads to an improvement in the administration function. The coefficient reveals high significance at the 0.000 level, strongly supporting the study hypotheses. These findings are in line with prior research by Hofstetter et al. (2020), which shared the positive impact of accountability enhancements on company performance. However, while stronger internal controls may enhance accountability by limiting access to other operations and processes, fragmented accountability could impede management's ability to make timely and effective decisions.

The positive correlation between organizational culture and the HSETT function holds several implications. The coefficient is statistically significant with a p-value of 0.013, indicating that an enhancement in organizational culture has the potential to improve HSETT. Hence, the study's hypothesis proposing that organizational culture is linked to HSETT function improvement is affirmed. These findings align with previous literature by Algahtani (2014) and Osei et al. (2023), which emphasized the pivotal role of organizational culture in creating company value. Each organization possesses its unique set of values, systems, and rules that delineate and influence staff behaviour. Therefore, deviations in the organizational culture can pose challenges in cost controls to improve operational performance.

The positive association observed between the market environment and the HSETT function suggests a noteworthy impact. It indicates that as market conditions improve, there is a corresponding enhancement in the efficiency of the HSETT function. Consequently, any shifts in market forces are bound to

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significantly influence the operational efficiency of the HSETT function, as evidenced by the p-value of 0.047. Thus, the study's hypothesis proposing that the market environment as a cost control factor is associated with improvement of HSETT function is supported. These findings align with Varadarajan (2020), whose research emphasized the substantial influence of understanding the business market dynamics to improve operational performance.

Conclusion

The study aimed to investigate cost control factors influencing operational performance in the government Human Settlement Unit in South Africa. Findings revealed that cost control factors play a significant role in the operational performance of Human Settlement Unit. Specifically, internal cost control factors such as staff adequacy and teamwork emerged as significant predictors of improvement of operational performance. Additionally, the external factors like socio-political changes and accountability wield substantial influence on the unit's performance. This underscores the importance for Human Settlement Unit to assess both internal factors and external factors when implementing cost controls. By addressing previously unexplored theories, this study developed an understanding of operational performance determinants related to eThekwini Human Settlement Unit. Previous research has highlighted the unique operational performance factors specific to each organization, emphasizing the significance of this study, given the distinctive operations of eThekwini Human Settlement Unit compared to profit-oriented organizations. Based on the findings, the study concludes that eThekwini Human Settlement Unit should prioritize fostering collaboration among staff, establishing clear accountability processes, and devising strategies for allocating resources to meet citizen demands. Recommendations for future research include expanding knowledge on cost controls and the dynamics affecting operational performance. This could be achieved through diverse methodologies and by incorporating data from various government spheres, thereby offering a broader understanding of these crucial aspects.

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